We claim:

1. An interlayer for placement on a paved surface, comprising a mixture of:

aggregate comprised of no more than about 15% by weight natural sand; and

an asphalt binder, wherein said interlayer has a Hveem Stability at 60°C and 50 gyrations of at least about 22 and a Flexural Beam Fatigue of at least about 50,000 cycles at 2000 microstrains, 10 Hz, 3.0±2.0% air voids, at 0-30°C

2. The interlayer of claim 1, wherein said asphalt binder is a polymer modified asphalt binder.

3. The interlayer of claim 1, wherein said interlayer is about 0.5 to 2 inches thick on said paved surface.

4. The interlayer of claim 1, wherein said binder is chosen based on the climate.

5. The interlayer of claim 1, wherein said binder is chosen from a Type I binder for Northern climates, a Type II binder for Central climates, and a Type III binder for Southern climates.

6. The interlayer of claim 1, wherein said interlayer is substantially impermeable.

7. The interlayer of claim 1, wherein said aggregate is comprised of no more than about 10% by weight natural sand.

8. The interlayer of claim 1, wherein said aggregate is comprised of no more than about 5% by weight natural sand.

9. A method of making an interlayer on a paved surface, comprising:

selecting an aggregate comprised of no more than about 15% by weight natural sand;

selecting polymer modified asphalt;

mixing said binder with said aggregate to form an interlayer mixture; and

performing a stability test on said interlayer mixture; and

performing a fatigue test on said interlayer mixture.

10. The method of claim 9, wherein said stability test is Hveem Stability test.

11. The method of claim 9, wherein said fatigue test is a Flexural Beam Fatigue Test.

12. The method of claim 9, further comprising:

determining the shear modulus and ductility of said binder.

13. The method of claim 9, further comprising:

applying said interlayer mixture to a paved surface.

14. The method of claim 9, wherein said paved surface is an airport runway.